

0 9 6 2 2 0 0 0 0 0 0 0 0 0 0

I Claim:

1. An optical beacon for aligning optical elements, comprising:

2 a rigid body comprising at least one connection point, whereby at least

one of said optical elements can be rigidly connected to said body;

4 at least one light source rigidly connected to said body, wherein said

light source is located a known distance in a known direction from said at

6 least one connection point;

switching means for switching said at least one light source

8 independently of any other said at least one light source; and

at least one aperture, wherein light from said at least one light source

10 passes through said aperture to space outside said body, whereby the

divergence of said light is limited.

2. The optical beacon of claim 1, wherein said body further comprises

said at least one aperture.

3. The optical beacon of claim 1, further comprising at least one mask

comprising said at least one aperture.

4. The optical beacon of claim 3, wherein said at least one mask is rigidly connected to said body.

5. The optical beacon of claim 3, wherein said at least one mask is rigidly connected to said at least one light source.

6. The optical beacon of claim 1, wherein said distance is within one meter (1 m).

7. The optical beacon of claim 1, wherein said distance is within one hundred millimeters (100 mm).

8. The optical beacon of claim 1, wherein said distance is within ten millimeters (10 mm).

9. The optical beacon of claim 1, wherein said distance is within two millimeters (2 mm).

10. The optical beacon of claim 1, wherein said at least one light source

comprises a light-emitting diode.

11. The optical beacon of claim 1, wherein said switching means further

2 comprises:

at least one common conductive path, and

4 at least one unique conductive path;

wherein said at least one light source further comprises two (2)

6 terminals, wherein one of said terminals is electrically connected to said at
least one common conductive path, and the other of said terminals is
8 electrically connected uniquely to said at least one unique conductive path.

12. The optical beacon of claim 1, wherein said body further comprises at
least part of said switching means.

13. The optical beacon of claim 12, wherein said at least part of said
switching means comprises at least one conductive trace.

14. The optical beacon of claim 1, wherein at least part of said switching
means comprises wire.

09225255 09225255

15. The optical beacon of claim 1, wherein said body comprises ceramic.
16. The optical beacon of claim 1, wherein the linear axial dimension of
2 said at least one aperture is greater than its greatest linear dimension
perpendicular to its axis.
17. The optical beacon of claim 1, wherein said at least one aperture
comprises at least one linear edge.
18. The optical beacon of claim 1, wherein said at least one aperture
comprises at least one curved edge.
19. The optical beacon of claim 1, wherein said at least one connection
point comprises a two-dimensional array of at least two connection points by
at least two connection points.
20. A method of generating an optical beacon signal for aligning of optical
elements, comprising the steps of:
activating at least one light source rigidly connected to a rigid body,

wherein said at least one light source is located a known distance in a known direction from at least one of said optical elements rigidly connected to said rigid body, wherein said activating is done independently of any other said at least one light source; and

limiting the divergence of light from said at least one light source.

21. The method of generating an optical beacon signal of claim 20,
wherein said limiting of divergence is done by at least one aperture
comprised by said body.

22. The method of generating an optical beacon signal of claim 20,
wherein said limiting of divergence is done by at least one aperture
comprised by an at least one mask rigidly connected to said body.

23. The method of generating an optical beacon signal of claim 20,
wherein said limiting of divergence is done by at least one aperture
comprised by an at least one mask rigidly connected to said light source.

24. The method of generating an optical beacon signal of claim 20,

wherein said distance is within one meter (1 m).

25. The method of generating an optical beacon signal of claim 20,

wherein said distance is within one hundred millimeters (100 mm).

26. The method of generating an optical beacon signal of claim 20,

wherein said distance is within ten millimeters (10 mm).

27. The method of generating an optical beacon signal of claim 20,

wherein said distance is within two millimeters (2 mm).

28. The method of generating an optical beacon signal of claim 20,

wherein said at least one light source comprises a light-emitting diode.

29. The method of generating an optical beacon signal of claim 20,

wherein said body comprises ceramic.